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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/759,074	ARAI, MASATOSHI	
	Examiner	Art Unit	
	HOI C. LAU	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9,10,12 and 14-20* is/are rejected.

7)☒ Claim(s) *8,11 and 13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1- 20 have been examined.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claim 1 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,146,259. Although the conflicting claims are not identical, they are not patentably distinct from each other because the narrower claim 1 of Patent No. 7,146,259 would encompass the broader claim 1 of current application.

3. Claims 9 and 10 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,146,259.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the narrower claim 1 of Patent No. 7,146,259 would encompass the boarder claims 9 and 10 of current application. It would have been obvious to one of ordinary skill in the art the instrument panel would include an opening in order for the image to be displayed on through the instrument panel.

4. Claims 2 and 3 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 9 and 10 of U.S. Patent No. 7,146,259. Although the conflicting claims are not identical, they are not patentably distinct from each other because the narrower claim 9 and 10 of Patent No. 7,146,259 would encompass the boarder claims 2 and 3 of current application. Further, it would have been obvious to one of ordinary skill in the art the holder would include a data connector for the movable personal computer to exchange/communicate information data with the on-board computer through the Controller Area network.

Claim Objections

5. Claims 16 and 18 are objected to because of the following informalities: both claims in an application are duplicates or else are so close in content that they both cover the same thing. Appropriate correction is required.

6. Claims 17 and 20 are objected to because of the following informalities: both claims in an application are duplicates or else are so close in content that they both cover the same thing. Appropriate correction is required.

7. Claims 4, 5, 14 and 15 are objected to because of the following informalities: both claims in an application are duplicates or else are so close in content that they both cover the same thing, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 5 recites the limitation "the screen" in line 3. There is insufficient antecedent basis for this limitation in the claim. Claim 5 is now interpreted as depending on claim 4 instead of claim 2 based on the merit of claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-2, 4, 12, 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Ichikawa et al. (U.S. 2003/0043029).

Regarding **claim 1**, Ichikawa teaches a movable personal computer [17] using system in a motor vehicle comprising: a PC holder [25] which is arranged inside an instrument panel [24] of the motor vehicle to hold a movable personal computer in said

instrument panel (figure 2-3) in a manner that the movable personal computer is attachable to and detachable from the PC holder [portable or handheld computer which is attachable and detachable] a virtual image displaying means [21] that shows a virtual image of a screen on a display of said movable personal computer so that the virtual image can seen from a passenger compartment of the motor vehicle (figure 2-5; paragraphs 21-26).

As to **claims 2**, Ichikawa teaches PC holder has a data connector [29] to exchange a data of information between the movable personal computer and a on-board device [32] of the motor vehicle (figure 2-5; paragraphs 21-26).

As to **claims 4 and 14**, Ichikawa teaches the movable personal computer is inputted with data of information from an on-board device of the motor vehicle and displays on said display a screen based on the data from the on-board device (figure 6; paragraphs 28-33).

As to **claim 12**, Ichikawa teaches computer receptacle 25 which is functioning as a PC holder with retainer to retain the movable personal computer and a flat supportable table [the flat surface of the computer receptacle] on which the movable personal computer is supported so as to set the screen side of the display of the movable personal computer upward when the movable personal computer is held by the retainer on the flat supporting table (figure 2-4; paragraphs 21-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (U.S. 2003/0043029 in view of Morgan et al. (U.S. 6,411,874), in further view of Eitzenberger (US 6,023,232).

As to **claim 3**, Ichikawa meets the limitation of claim and shows the data connector of the PC holder is connectable to a data input/output connector of a movable personal computer (figure 3, 5), except it fails to specific mention a Controller Area Network of the motor vehicle and the movable personal computer are linked to each other.

In the analogous art of On-vehicle display unit, Morgan teaches the data connector of the PC holder is connectable to a data input/output connector of a movable personal computer so that the Network of the motor vehicle and said movable personal computer are linked to each other (col. 6, lines 35-38; col. 7, lines 9-67).

Eitzenberger teaches various interfaces can be used to connect the portable device to the on-board computer such as CAN, RS232, PCMCIA, etc (col. 4, lines 38-56).

It would have been obvious to one of ordinary skill in the art the data connector as taught by Morgan would be using CAN interface to connect between the portable computer and the on-board device and would have been obvious to modify the data connector as taught by Ichikawa to a CAN interface because the CAN interface would be an alternative connector available in the art and such modification for connector would yield to a similar predictable result.

11. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (U.S. 2003/0043029 in view of Morgan et al. (U.S. 6,411,874).

As to **claims 5 and 15**, Ichikawa meets the limitation of claim and shows the virtual image displaying means being arranged at an instrument portion of the instrument panel (figure 2, 3).

It fails to show the screen based on the data from the on-board device is concerned about an instrument data of the motor vehicle.

Morgan teaches the screen based on the data from the on-board device is concerned about an instrument data of the motor vehicle, and the virtual image displaying means being arranged at an instrument portion of the instrument panel (figure 4-7, 18; col. 9, line 9 - col. 12, line 67).

It would have been obvious to one of ordinary skill in the art to associate the instrument data of the motor vehicle and display on the screen as taught by Morgan to the display unit of Ichikawa because it would allow the driver to be aware the condition and status information of the vehicle.

12. Claims 6, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (U.S. 2003/0043029 in view of Trauner et al. (U.S. 2002/0070852).

As to **claim 6**, Ichikawa meets the limitation of claim except it fails to show the movable personal computer is prevented from manually operating said movable personal computer during vehicle running.

In the analogous art of On-vehicle display unit, Trauner teaches the movable personal computer [PDA] is prevented from manually operating said movable personal computer during vehicle running (abstract; paragraphs 16-17, 20).

It would have been obvious to one of ordinary skill in the art to implement the disable function when vehicle is moving as taught by Trauner to system of Ichikawa because it would improve the road safety by preventing drivers from distraction while driving the vehicle.

As to **claims 16 and 18**, they corresponds to claim 6; they are therefore rejected for the similar reasons set for in rejection of claim 6.

13. Claims 7, 9-10, 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (U.S. 2003/0043029 in view of Morgan et al. (U.S. 6,411,874), in further view of Noguchi et al. (US 6,707,387).

As to **claim 9**, Ichikawa meets the limitation of claim and except it fails to show the virtual image displaying means is arranged inside said instrument panel, and said instrument panel has an opening through which the virtual image of the screen on the display of said movable personal computer can be seen from a passenger compartment of the motor vehicle

Morgan teaches the virtual image displaying [19] means is arranged inside said instrument panel, and said instrument panel has an opening through which the virtual image of the screen on the display of said movable personal computer can be seen from a passenger compartment of the motor vehicle (figure 4, 7; col. 4, lines 6-67; col. 9, lines 10-31; col. 11, lines 20-24).

Further, Noguchi shows the display unit is arranged inside the instrument panel (Figure 1).

It would have been obvious to one of ordinary skill in the art to modify the mounting structure for the display unit with virtual image display as taught by Ichikawa to embed or flush mounting the virtual image display with movable personal computer inside the instrument pane as taught by Morgan and/or replace the display unit 4 as taught by Noguchi with the movable personal computer with virtual image display because the instrument panel would then function as a protection assembly for the PC and virtual image display from environmental and facilitate the superior appearance.

As to **claim 10**, Ichikawa teaches the virtual image displaying means is composed of a plurality of mirror members [translucent screen with display mirror image from portable computer screen; screen support member] (figure 2; paragraphs 22-24).

As to **claim 7**, Ichikawa meets the limitation of claim and shows a auxiliary display (display cluster in the instrument panel), except it fails to show the instrument panel has an auxiliary display that displays limited information obtained from an on-board device when said display of said movable personal computer fails to display the screen based on the data from the on-board device.

Morgan show the movable personal computer and virtual image display is connecting to the onboard device and communicating the vehicle data between both the devices wherein the screen based on the data from the on-board device is concerned about an instrument data of the motor vehicle, and the virtual image displaying means being arranged at an instrument portion of the instrument panel (figure 4-7, 18; col. 9, line 9 - col. 12, line 67).

It would have been obvious to one of ordinary skill in the art to associate the instrument data of the motor vehicle and display on the screen as taught by Morgan to the display unit of Ichikawa because it would allow the driver to be aware the condition and status information of the vehicle.

Noguchi teaches the meter housing [5] is operating with a display unit [4] wherein the display unit for show the vehicle data (figure 1, 5, 6, 13; col. 4, lines 6-32; col. 14, lines 22-67) and would have been obvious the meter housing is functioning as a auxiliary display which is still operating even if the display unit [4] is failed to operate properly by showing limited information regards the vehicle since the auxiliary display is an separate and analog display . In addition, it would have been obvious to one of ordinary skill in the art to associate the feature of the auxiliary display as taught by Noguchi to the meter display because it would allow the driver to obtain the limited vehicle data such vehicle speed, oil remain, etc, even the display unit (movable personal computer and virtual image display is failure.

As to **claims 17 and 20**, they corresponds to claim 7; they are therefore rejected for the similar reasons set for in rejection of claim 7.

14. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ichikawa et al. (U.S. 2003/0043029 in view of Trauner et al. (U.S. 2002/0070852), in further view of Noguchi et al. (US 6,707,387).

As to **claim 19**, the combination meets the limitation of claim and Ichikawa shows a auxiliary display (figure 2; display cluster in the instrument panel), except it fails to show the instrument panel has an auxiliary display that displays limited information obtained from an on-board device when said display of said movable personal computer fails to display the screen based on the data from the on-board device.

Morgan show the movable personal computer and virtual image display is connecting to the onboard device and communicating the vehicle data between both the devices wherein the screen based on the data from the on-board device is concerned about an instrument data of the motor vehicle, and the virtual image displaying means being arranged at an instrument portion of the instrument panel (figure 4-7, 18; col. 9, line 9 - col. 12, line 67).

It would have been obvious to one of ordinary skill in the art to associate the instrument data of the motor vehicle and display on the screen as taught by Morgan to the display unit of Ichikawa because it would allow the driver to be aware the condition and status information of the vehicle.

Noguchi teaches the meter housing [5] is operating with a display unit [4] wherein the display unit for show the vehicle data (figure 1, 5, 6, 13; col. 4, lines 6-32; col. 14, lines 22-67) and would have been obvious the meter housing is functioning as a auxiliary display which is still operating even if the display unit [4] is failed to operate

properly by showing limited information regards the vehicle since the auxiliary display is an separate and analog display . In addition, it would have been obvious to one of ordinary skill in the art to associate the feature of the auxiliary display as taught by Noguchi to the meter display because it would allow the driver to obtain the limited vehicle data such vehicle speed, oil remain, etc, even the display unit (movable personal computer and virtual image display is failure.

Allowable Subject Matter

15. Claims 8, 11 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Learman et al (U.S. 6,417,786) “Vehicle navigation system with removable …”

b. Beckert et al. (U.S. 5,949,345) “Displaying computer information to a driver…”

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOI C. LAU whose telephone number is (571)272-8547. The examiner can normally be reached on M- F 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Bugg can be reached on (571)272-2998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hoi C Lau/
Examiner, Art Unit 2612

/George A Bugg/
Acting SPE of Art Unit 2612